

## WHAT IS CLAIMED IS:

1. A method for determining the residual travel duration of a submarine, the method comprising:

firstly, for at least one certain travel situation of the submarine, carrying out a reference journey, with which the power consumption of the submarine is detected, and stored as a situation-dependent consumption profile; and

later, for the same travel situation of the submarine, predicting the residual travel duration or a residual capacity of a battery after a predefined travel duration on the basis of the stored consumption profile and the current battery data.

2. A method according to claim 1, wherein with for several predefined travel situations reference journeys are carried out with which in each case the power consumption of the submarine is detected and is stored as a situation-dependent consumption profile specific to the respective travel situation.

3. A method according to claim 1, wherein at the reference journey in a travel situation an average value of the recorded power consumption is formed over a measurement interval.

4. A method according to claim 1, further comprising selecting a previously stored matching consumption profile by the operator for the computation of the residual travel duration or of the residual capacity of the battery to be carried out.

5. A method according to claim 1, wherein during a reference journey the speed of the submarine is kept substantially constant and the power consumption which is detected is stored as a situation-dependant and speed-dependent consumption profile.

6. A method according to claim 1, wherein for a predefined travel situation a consumption profile which is not determined by a reference journey is interpolated from at least two other consumption profiles determined by a reference journey.

7. A method according to claim 1, further comprising detecting the fuel reserve at least of one charging unit and taking the fuel supply into account on computing the residual travel duration or the residual capacity.

8. A method according to claim 1, further comprising detecting the fuel and oxidant reserve of a fuel cell installation of the submarine and taking the fuel and oxidant reserve of a fuel cell installation into account on computation of the residual travel duration or the residual capacity.

9. A method according to claim 1, wherein the power consumption of a propeller motor and remaining power consumption units of the submarine are detected together at one point of measurement.

10. A method according to claim 1, wherein the power consumption of a propeller

motor and remaining power consumption units of the submarine are detected separately from one another at at least two different points of measurement.

11. A device for determining the residual travel duration of a submarine, the device comprising: a computer; a display; input means; and a detection unit for detecting the power consumption of the submarine, said computer comprising a profile production module for producing at least one situation-dependent consumption profile with at least one certain travel situation on the basis of data detected from the detection unit, a memory module for storing the produced consumption profile and a computation module for computing the residual travel duration in a certain travel situation on the basis of a stored consumption profile for this travel situation, and current battery data.

12. A device according to claim 11, further comprising an interface to a battery monitoring means for transmitting current battery data to the computer.

13. A device according to claim 11, further comprising an interface to a travel measurement means for transmitting current travel data to the computer.

14. A device according to claim 11, further comprising an interface to a submarine installation automation for transmitting necessary data to the computer.

15. A device according to claim 11, wherein the computer, the display and the input

means and/or the detection unit are integral components of an automation system or a battery monitoring means.

16. A device according to claim 11, wherein the computer, the input means and the detection unit are implemented with a software module in an automation system or a battery monitoring means.